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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,693	03/24/2004	Hiroshi Nakata	1052-04	4406

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EXAMINER

ALEXANDER, MICHAEL P

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/807,693

Applicant(s)

NAKATA ET AL.

Examiner

Michael P. Alexander

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 17-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 17-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim(s) 1-8 and 17-24 is/are pending.

Priority

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-8 and 17-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al. (JP 15-147477).

Regarding claim(s) 1, Hayashi teaches (0009-0016) a hot-rolled steel plate (i.e. strip) having inherently having superior low temperature toughness and weldability, comprising: on a mass percent basis, 0.005 to 0.03% of C; 0.05 to 0.5% Si; 1.5 to 3.0%

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Mn; 0.01 to 0.08% Al; 0.005 to 0.08% Nb; 0.003 to 0.080% V; 0.003 to 0.05% Ti; 0.05 to 2.0% Cu; 0.05 to 2.0% Ni; 0.05 to 1.00% Mo; the balance being Fe and incidental impurities, the hot-rolled steel strip is composed of bainitic ferrite as a primary phase at a content of 80 percent by area (which is the same as by volume) or more. The amounts of C, Al, Nb, V, and Ti disclosed by Hayashi anticipate the claimed amounts of C, Al, Nb, V and Ti. The amounts of Si, Mn, Cu, Ni and Mo overlap with the claimed amounts of C, Al, Nb, V and Ti, which is prima facie evidence of obviousness. See MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art to select the claimed amounts of C, Al, Nb, V and Ti from the ranges disclosed by Hayashi because Hayashi teaches the same utility throughout the disclosed ranges.

With respect to the limitation that the steel be "for a high strength electric resistance welding pipe" in claim 1, the examiner considers this a recitation of intended use which is not given patentable weight.

With respect to the limitations regarding the P, S and N contents in claim 1, Hayashi does not specify that it is necessary to contain any P, S or N in the steel. Therefore, Hayashi would inherently have the claimed amount of P, S and N.

With respect to the compositional formula in claim 1, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177., 57 USPQ 117, *Takalatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of elements would appear to require no more than routine investigation

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by those ordinary skilled in the art. In re Austin, et al., 149 USPQ 685, 688. It would have been obvious to one of ordinary skill in the art to select alloys within the claimed compositional ranges from the compositional ranges disclosed by Hayashi because Hayashi teaches the same utility throughout the disclosed ranges.

With respect to the limitation that the steel be composed of bainitic ferrite of 95 percent by volume in claim 1, the claimed range overlaps with the disclosed range of Hayashi that the steel be composed of bainitic ferrite of 80 percent by area or more, which is prima facie evidence of obviousness. See MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art to select the desired amount of bainitic ferrite from the range disclosed by Hayashi because Hayashi teaches the same utility throughout the disclosed range.

With respect to the limitation that the steel have a yield strength of at least 560 MPa in claim 1, the Examiner asserts that the steel of Hayashi would inherently have the claimed yield strength because Hayashi teaches the substantially same composition, the substantially same microstructure and the substantially same processing.

Regarding claim 2, the Examiner asserts that the steel of Hayashi would inherently have the claimed ratio of Nb because Hayashi teaches (0032) that the cooling after hot rolling is stopped at 400 degrees or less.

Regarding claims 3-4, Hayashi teaches (0021) further comprising 0.0003 to 0.0030% of Ca on a mass percent basis.

Regarding claim 5-8, Hayashi teaches (0020) further comprising 0.0003 to 0.0025% B. With respect to the compositional formula, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177., 57 USPQ 117, *Takalatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of elements would appear to require no more than routine investigation by those ordinary skilled in the art. *In re Austin, et al.*, 149 USPQ 685, 688. It would have been obvious to one of ordinary skill in the art to select alloys within the claimed compositional ranges from the compositional ranges disclosed by Hayashi because Hayashi teaches the same utility throughout the disclosed ranges.

Regarding claim 17, see the rejection of claim 1. With respect to the limitation that the steel have a CTOD value of 0.25 mm or more in claim 17, the Examiner notes that CTOD is a measure of toughness. Hayashi does not specify the CTOD value of the steel, but Hayashi teaches (0001) that the steel would be highly tenacious (i.e. high toughness), therefore the Examiner asserts that the steel of Hayashi would inherently have the claimed CTOD value.

Regarding claims 18-24, see the rejections of claims 2-8.

Claim Rejections - 35 USC § 103

Claims 1-8 and 17-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toru et al. (JP2004-84019-A).

Regarding claim 1, Toru teaches (0006, 0011-0024) a hot-rolled steel plate (i.e. strip) inherently having superior low temperature toughness and weldability, comprising: on a mass percent basis, 0.005 to 0.025% C; 0.05 to 0.5% Si; 1.5 to 3.0% Mn; 0.01 to 0.08% Al; 0.005 to 0.08% Nb; 0.003 to 0.008% V; 0.003 to 0.050% Ti; 0.05 to 2.0% Cu; 0.05 to 2.0% Ni; 0.05 to 1.00% Mo; and the balance Fe and incidental impurities, the hot-rolled steel strip is composed of bainitic ferrite as a primary phase at a content of 90 percent by area (which is the same as by volume) or more.

With respect to the limitation that the steel be "for a high strength electric resistance welding pipe" in claim 1, the examiner considers this a recitation of intended use which is not given patentable weight.

With respect to the limitations regarding the P, S and N contents in claim 1, Toru does not specify that it is necessary to contain any P, S or N in the steel. Therefore, the steel of Toru would inherently have the claimed amount of P, S and N.

With respect to the compositional formula in claim 1, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177., 57 USPQ 117, *Takalatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of elements would appear to require no more than routine investigation by those ordinary skilled in the art. *In re Austin, et al.*, 149 USPQ 685, 688. It would have been obvious to one of ordinary skill in the art to select alloys within the claimed

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compositional ranges from the compositional ranges disclosed by Toru because Toru teaches the same utility throughout the disclosed ranges.

With respect to the limitation that the steel be composed of bainitic ferrite of 95 percent by volume in claim 1, the claimed range overlaps with the disclosed range of Hayashi that the steel be composed of bainitic ferrite of 90 percent by area or more, which is prima facie evidence of obviousness. See MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art to select the desired amount of bainitic ferrite from the range disclosed by Toru because Toru teaches the same utility throughout the disclosed range.

With respect to the limitation that the steel have a yield strength of at least 560 MPa in claim 1, the Examiner asserts that the steel of Toru would inherently have the claimed yield strength because Toru teaches the substantially same composition, the substantially same microstructure and the substantially same processing.

Regarding claim 2, the Examiner asserts that the steel of Toru would inherently have the claimed ratio of Nb because Toru teaches (0032) stopping the cooling rate after hot rolling at below 400 degrees C.

Regarding claims 3-4, Toru teaches (0011) further comprising 0.0003 to 0.0030% of Ca on a mass percent basis.

Regarding claim 5-8, Hayashi teaches (0020) further comprising 0.0003 to 0.0025% B. With respect to the compositional formula, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177., 57 USPQ 117,

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Takalatwalla v. Marburg, 620 O.G. 685, 1949 C.D. 77, and In re Pilling, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of elements would appear to require no more than routine investigation by those ordinary skilled in the art. In re Austin, et al., 149 USPQ 685, 688. It would have been obvious to one of ordinary skill in the art to select alloys within the claimed compositional ranges from the compositional ranges disclosed by Toru because Toru teaches the same utility throughout the disclosed ranges.

Regarding claim 17, see the rejection of claim 1. With respect to the limitation that the steel have a CTOD value of 0.25 mm or more in claim 17, the Examiner notes that CTOD is a measure of toughness. Toru does not specify the CTOD value of the steel, but Toru teaches (000) that the steel would have a high toughness, therefore the Examiner asserts that the steel of Toru would inherently have the claimed CTOD value.

Regarding claims 18-24, see the rejections of claims 2-8.

Response to Arguments

Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Alexander whose telephone number is 571-272-8558. The examiner can normally be reached on M-F 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy V. King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ML

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